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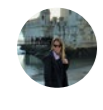
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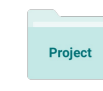
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# EVALUATION OF FOOD LABELLING USEFULNESS FOR CONSUMERS

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## INTRODUCTION

Food labelling is the main means of communicating between food business operators and consumers. In the last few years, consumers are concerned about the type of food they consume therefore demanding more transparent labelling mentioning and clearly indicating a list of all the ingredients and/or nutritional values among others which should be (Weaver et al., 2014). Most studies on food labelling are aimed at consumer perception of specific labelling characteristics such as nutritional composition and how it is presented, indication of premium products or indication of local products among others (Pettigrew et al., 2016). However, the usefulness of the information provided for consumers is scarcely assessed (Grunert and Wills, 2007). Therefore, this study assesses the usefulness and perceptions of food labelling for consumers.

## MATERIAL AND METHODS

An online survey was developed on google forms and conducted from September, 2016 to October, 2017. The questions were designed to obtain information about the value of food labelling for consumers. The survey was comprised by 308 questions addressed to assess the information presented in foods labelling. All questions were measured on a five-point Likert scale (1 = never; 2 = rarely, 3 = sometimes, 4 = frequently 5 = always). Questions concerning sociodemographic characteristics of respondents were also included. Descriptive analyses and Cronbach's alpha coefficient was calculated to assess the consistency of the survey. The influence of the socio demographic characteristics on the use and understanding of the information displayed in food products labelling was assessed by the Kruskal-Wallis test.

## RESULTS

A total of 308 consumers answered the online survey. The sample set consisted of 83 men (26.9%) and 225 women (73.1%). 195 respondents (63.3%) were single, 21 (6.8%) married and 92 (29.9%) divorced. According to age, 23.4% were under 25, 62.0% ranged from 25 to 45 and 14.3% were older than 45. Respondent's salary was under 500€ (31.2%), 500€-900€ (33.4%), 900€-1500€ (21.1%) and over 1500€ (14.4%). Results from the internal consistency test based on the Cronbach alpha coefficient was 0.802, indicating a good internal reliability. The reasons why consumers mentioned not reading food labels showed that over 50% declared "lack of time", almost 45% considered it excess information and about 50% trusted the brand name. The factors which influenced consumers at the time of purchase were price, presentation, product shelf-life and ingredients.. Proximally, 75% considered the food label information important although the information of the food business operators was not relevant for 40% of consumers. Moreover, the perception of mislabelling showed that 85% of consumers did not consider this practice as a risk to public health and about 75% indicated that mislabelling is not associated to an economic income for food business operators. Table 2 shown the study of the factors which influence food labelling usefulness. Regarding the reasons of reading labelling, consumers with dietary restrictions paid more attention to the composition of food. Consumers with more schooling and healthy habits had a greater perception of healthy products. In addition, the verification of the utilization instructions was related to age, education and sports exercising. It was observed that age, practicing sports and/or the existence of food restrictions influenced the appreciation regarding appearance, product origin or the list of ingredients at the time of purchase.

**Table 1. Consumer perceptions and usefulness about food labelling.**

	Never	Rarely	Sometimes	Frequently	Always
<b>Reasons why consumers do not read food labels</b>					
Food product brand confidence	31.8	20.5	22.1	19.5	5.8
Lack of time	20.8	18.5	33.1	23.7	3.8
Information displayed in the food product labelling is difficult to understand	24.7	28.2	35.1	10.7	1.3
Food product labelling provided excessive information	23.1	27.3	33.8	13.0	2.9
Lack of consumer confidence on information displayed on the food product labelling	27.3	34.1	28.2	7.5	2.9
<b>Reasons why consumers read food labels</b>					
New food product	0	0	100	0	0
Consumer presented some food intolerance or allergies	62.0	17.2	7.5	6.8	6.2
It is aware of existence of healthy products	2.6	6.8	23.1	36.4	31.2
Interest of country of manufacture / origin of the foodstuff	2.9	14.0	29.2	29.5	24.4
Comparison to similar products	3.2	7.8	29.5	44.8	14.6
Interest on the instructions for use	2.3	12.3	26.3	39.9	19.2
Appropriate for vegetarians	62.0	17.2	10.7	3.9	6.2
Verification of organic food product	20.8	24.4	28.9	15.9	10.1
Existence of certification	10.7	19.8	31.5	22.7	15.3
<b>Factors affecting consumer buying decision</b>					
Brand	6.5	27.3	44.8	19.5	1.6
Price	-	4.2	25.6	39.3	30.5
Appearance	1.6	10.4	25.3	39.9	22.4
Country of origin	14.0	21.1	26.9	28.2	9.4
Shelf life	1.6	4.9	19.5	19.5	54.2
Nutritional value	6.8	15.6	28.2	29.9	19.2
Ingredients	4.9	11.7	29.5	32.1	21.4
<b>Usefulness of food labelling</b>					
Product constitution	1.9	7.1	19.2	40.9	30.8
Nutritional value	1.9	10.7	21.4	34.4	31.2
Shelf life	0.3	6.8	10.7	25.3	56.8
Presence of preservatives / additives	2.6	12.0	18.8	34.1	32.5
Weight or volume	3.2	13.6	29.5	34.1	19.5
Product name	2.3	15.9	33.4	33.1	15.3
How to use	2.3	11.7	30.5	37.0	18.5
Name or business name and address	13.0	27.9	28.9	18.8	11.4
Place / country of production	6.8	16.6	26.6	26.3	23.4
<b>Reading frequency of food labels</b>					
Meat and meat products	11.4	21.1	22.4	30.5	14.6
Fish and fish products	11.7	19.5	22.1	30.8	15.9
Milk and dairy products	5.2	13.6	27.9	34.1	19.2
Frozen products	3.9	12.3	22.4	35.7	25.6
<b>Perception of food mislabelling</b>					
Risk to public health	61.4	23.1	13.3	2.3	0
Loss of consumer confidence	33.1	39.9	24.4	0.6	1.9
Benefit for the food business operator	41.9	33.1	20.1	2.6	2.3

## CONCLUSION

Food labelling is a way of communication between food business operator and consumers and represent an important role in the consumers' choice at purchase. The enforcement of the new food labelling policy was aimed to improve the food safety and public health throughout the mandatory indication of several information and nutritional values. However, the effort developed by food and health authorities could be compromised since consumers do not read the food label as observed in the present work. Thus, lack of time and excessive information was referred as the main factors to decline food labelling read. In addition, it was observed that food labelling is more useful for specific consumers groups such as athletes, consumers with health conditions or consumers concerned with a healthy lifestyle.

**Table 2. Socio-demographic characteristics that influence the food labelling perceptions by consumers.**

	Age	Education	Country of origin	Salary	Dietary restrictions	Healthy lifestyle	Practice of sports
<b>Reasons why consumers read food labels</b>							
Consumer presented some food intolerance or allergies	-	-	-	-	P<0.05	-	-
It is aware of the existence of healthy products	-	P<0.01	-	-	-	-	-
Interest of the country of manufacture / origin of the food product	-	-	P<0.05	-	-	-	P<0.05
Interest on the instructions for use	P<0.05	P<0.05	-	-	-	-	P<0.05
Verification of organic food product	-	-	-	-	P<0.05	P<0.05	P<0.05
Existence of certification	-	-	-	P<0.05	-	P<0.05	-
<b>Factors affecting consumer buying decision</b>							
Appearance	-	-	-	P<0.05	P<0.05	-	P<0.05
Country of origin	P<0.05	-	P<0.05	-	-	-	P<0.05
Nutritional value	-	-	-	-	P<0.01	-	P<0.05
Ingredients	P<0.05	-	-	-	P<0.05	-	P<0.001
<b>Usefulness of food labelling</b>							
Product constitution	-	-	-	-	-	P<0.05	P<0.05
Nutritional value	-	-	-	-	-	P<0.01	-
Weight or volume	-	P<0.05	-	-	-	-	-
Product name	-	-	-	-	-	P<0.05	-
How to use	-	P<0.05	-	-	-	-	-
Place / country of production	-	-	-	-	-	-	P<0.05
<b>Perception of food mislabelling</b>							
Risk to public health	-	-	-	-	-	-	P<0.05
Benefit for the food business operator	-	-	-	-	-	-	P<0.05

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